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ABSTRACT

To gather information on the importance of current educational-technology innovations for students in the IBM Teacher Preparation Program (an integrated Bachelor's and Master's program) at the University of Connecticut's School of Education, a survey was sent to all students enrolled in the program in April 1993. Responses were received from 115 students, 93 of whom were female. Almost 95% had taken a course that taught them to use computers, with 80.5% of these courses at the college level. Approximately 56% reported that they often used computers. As teachers, 35.4% indicated that they seldom used a computer, while 27.4% used one often, and 22.1% never used one. Nearly 16% used computers often as an instructional tool. A majority (79.6%) used computers for word processing, but almost 57% did not use any computer applications to develop instruction. Subjects had the greatest degree of confidence in computer use for individualized instruction and the least confidence in computer use for large group instruction. Overall, it is evident that students are learning with and about computers. Nine figures present survey findings. An appendix presents the survey itself. (SLD)

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Results of the Computer Use Survey for School of Education Students

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Paper presented at the 1994 American Educational Research Association conference, New Orleans, LA., April 5, 1994.

Introduction

In an effort to gather information on the importance of current educational technology innovations for the students in the IBM Teacher Preparation Program (Integrated Bachelor's and Master's Program) at the University of Connecticut's School of Education, a survey was administered to all students enrolled in the program in April 1993. The survey was developed by the UConn Bureau of Educational Research and Service (See Appendix A). The survey was completed anonymously by the students.

Demographics

The survey was sent out to 90 juniors, 80 seniors and 15 5th-year students. Fifty-nine juniors, 46 seniors, six 5th year and 4 other majors' students returned the survey. The return rate was 60%. Among the subjects, 20 are male and 93 are female. Fifty-eight students were in the elementary program, 35 were in secondary, 15 were in special education, and 5 were from the other majors (See Figure 1).

Forty percent of students owned a computer and 78.8% had computer experience before entering the teacher education program. Approximately fifty percent of students used computers for personal productivity, 22.1% used computers for job-related productivity, and 11.5% used computers as an instructional tool (See Figure 2).

Analysis of the responses according to the student level (Junior, Senior, 5th year) failed to indicate a significant pattern of results according to the student level. Therefore, all further analyses were conducted on the total sample.

Results

Student Role

Almost 95% indicated that they had taken a course when they were taught to use computers and 80.5% of these course were at the college level. About 78% used computers in courses other than the computer education course, and 62.8% of these courses were not in the education field.

Seventy-seven percent used computers to complete their class work. Around 56% answered that they used computers often, and 31.9% said they seldom used computers. About 49.6% reported that they seldom use electronic mail, and 37.2% never use E-Mail.

Teacher Role

As teachers, 35.4% indicated that they seldom used a computer, 27.4% used often, and 22.1% never used a computer. Roughly 35% seldom used computers, 34.5% never used computers, and 15.9% used computers often as an instructional tool.

When using the computer as an instructional tool, 28.3% mostly used for the individualized instruction, and 16.8% used it for CAI (See Figure 3). With respect to the personal productivity, 79.6% used computers for word processing. Almost 57% didn't use any computer application to develop instruction. About 55% never used E-Mail and 23.9% seldom used E-Mail.

When evaluating instructional software, 36.3% considered user-friendliness as the most important issue, 28.3% considered appropriateness and 14.2% considered instructional design. Approximately 58% considered length of program the least important and 19.5% concerned cost the least important.

Confidence in Technology

When using computers in instructional situations, subjects showed more confidence in the individualized instruction and had least confidence in large group instruction (See Figure 4).

When using computers as a productivity tool, subjects showed the most confidence in word processing and had the least confidence in data base (See Figure 5).

In the area of computer applications and video features, subjects indicated little confidence in using computer applications and felt most confident in using videotapes (See Figure 6).

In the general sense of technology, about 35% showed some confidence in using computers and using computers as instructional tools. Around 38% felt some degree of confidence in evaluating instructional software. Only 33.6% showed some confidence in using the facilities at UCEML (University of Connecticut Educational Microcomputer Laboratory). About 50% had some confidence in CD-ROM searches (See Figure 7).

Future Needs

According to the current sample, 26.5% felt individualized instruction will use computers the most and distance learning/teaching will use computer the least in the future (See Figure 8). Additionally, 43.4% felt large group instruction will use computers least in the future (See Figure 9).

The majority of the sample (87.6%) would like to have instruction designed to increase their ability to use computers. The fact that the majority of the students want to increase their computer instruction is a very positive findings. Students desiring such

instruction indicates their awareness of the importance of educational technology.

Roughly 57% thought the college instructors did not effectively use computers in their classes. Almost 66% thought the professors at the School of Education often effectively use computers in their classes.

Summary

It is clear that our students are learning with and about computers in various educational settings and that we must continue to increase our own use of computers in instruction in all appropriate classes and serve as positive role models utilizing various educational technology.

The present results provide initial findings of computers in educational settings and will be represented on a regular basis to provide feedback for curricular changes in current technology-related courses.

Figure 1
Educational Program

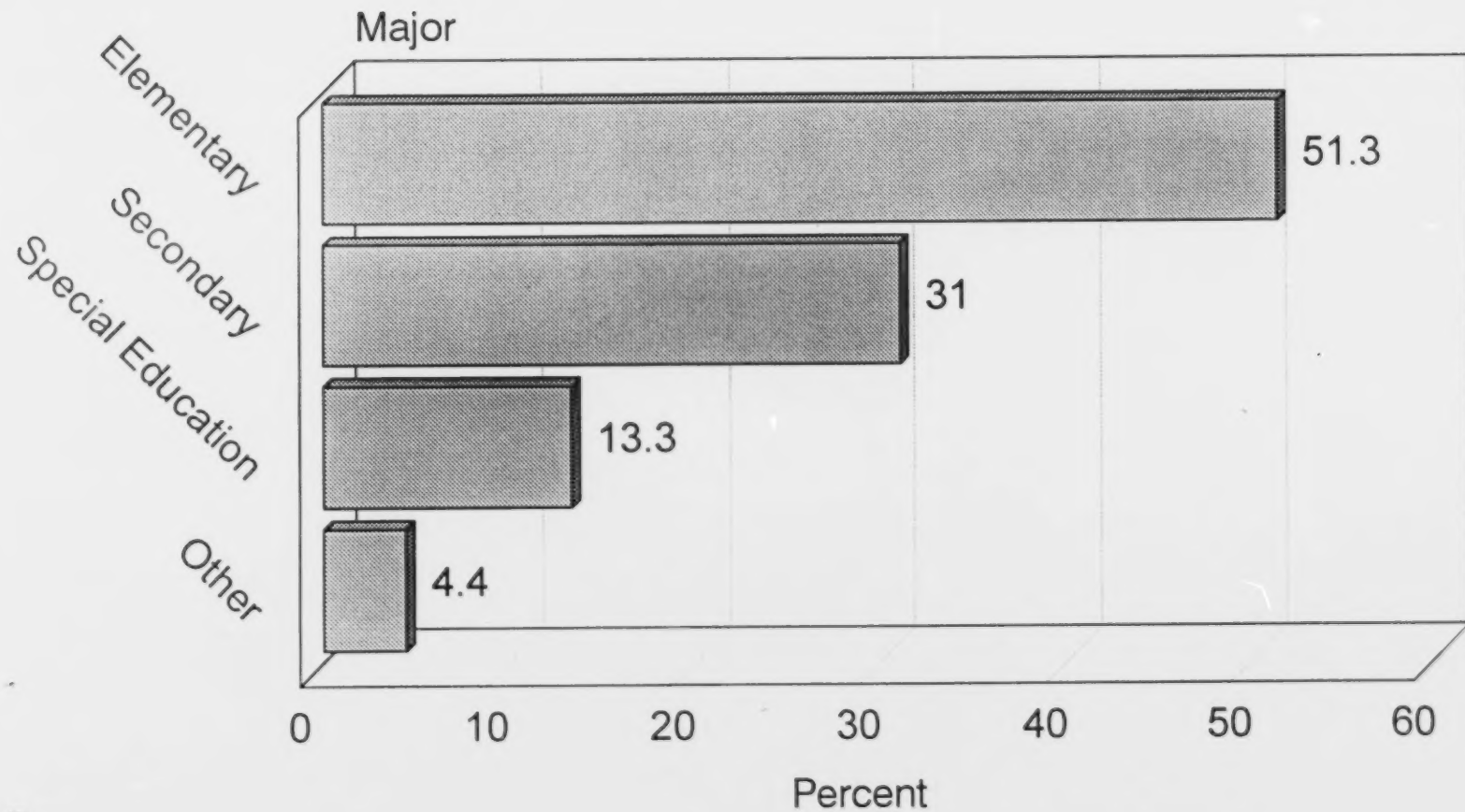


Figure 2
Areas of Computer Usage

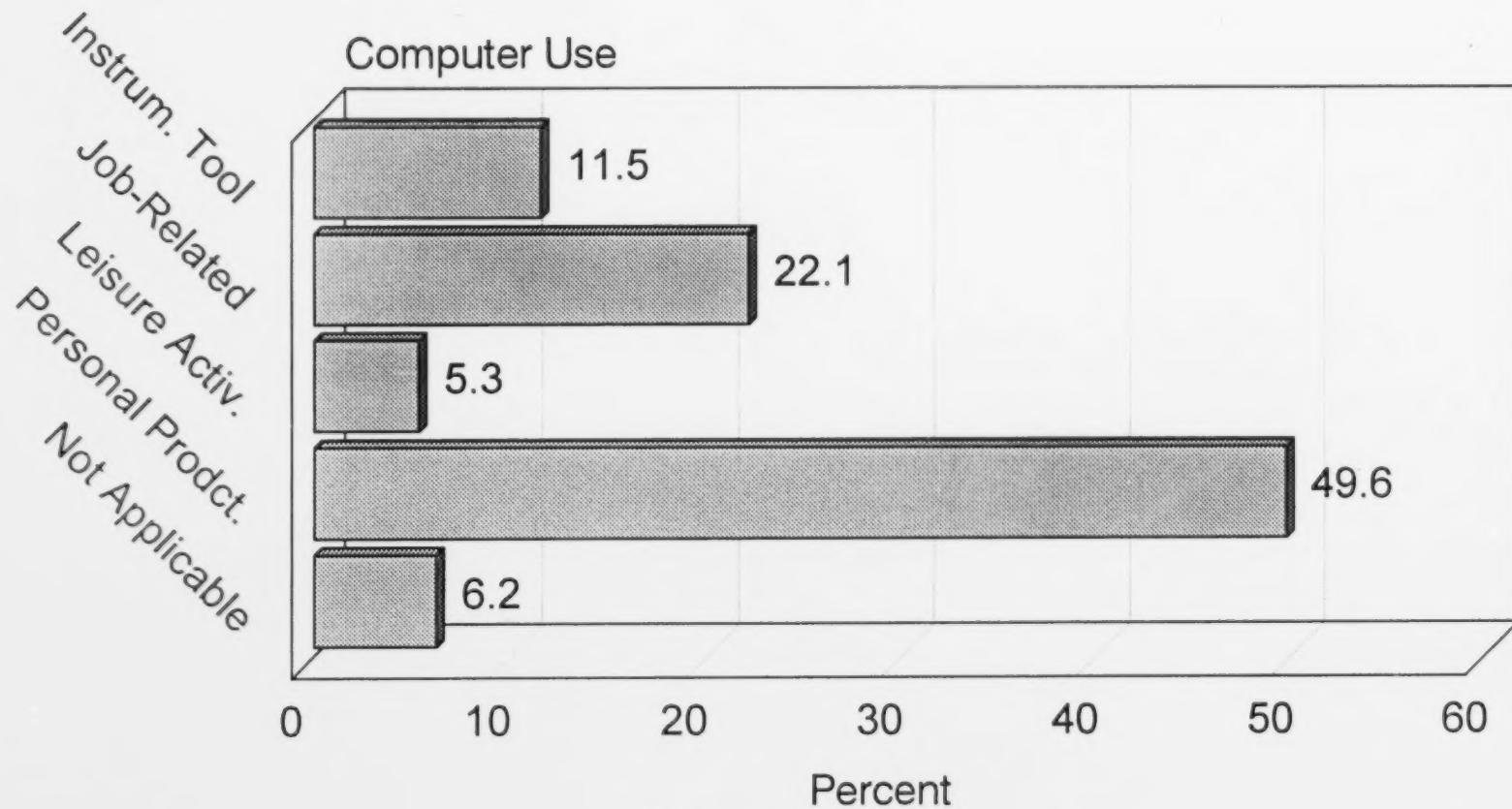


Figure 3
Instructional Tool Situations

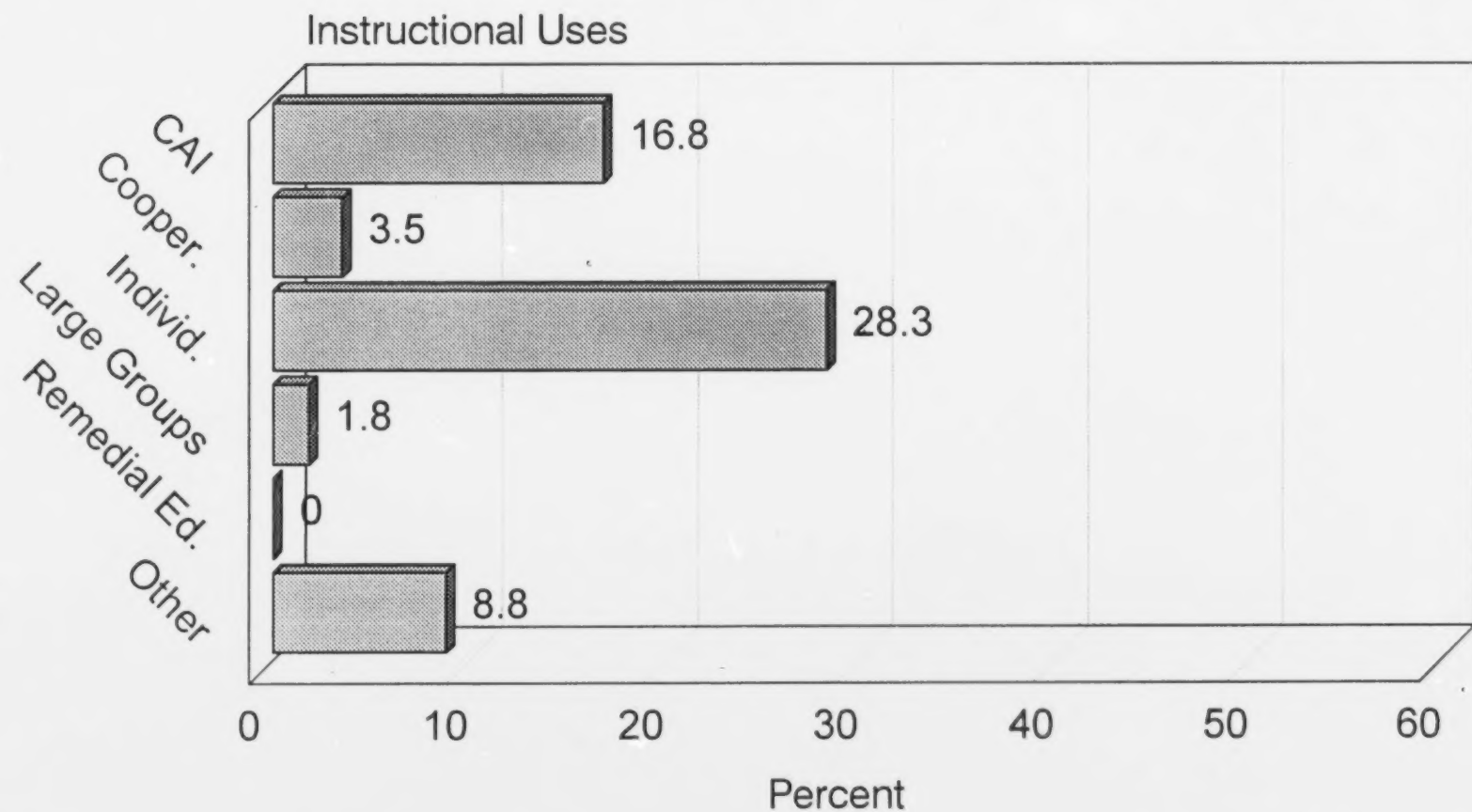


Figure 4
Confidence in Technology (Instructional Situations)

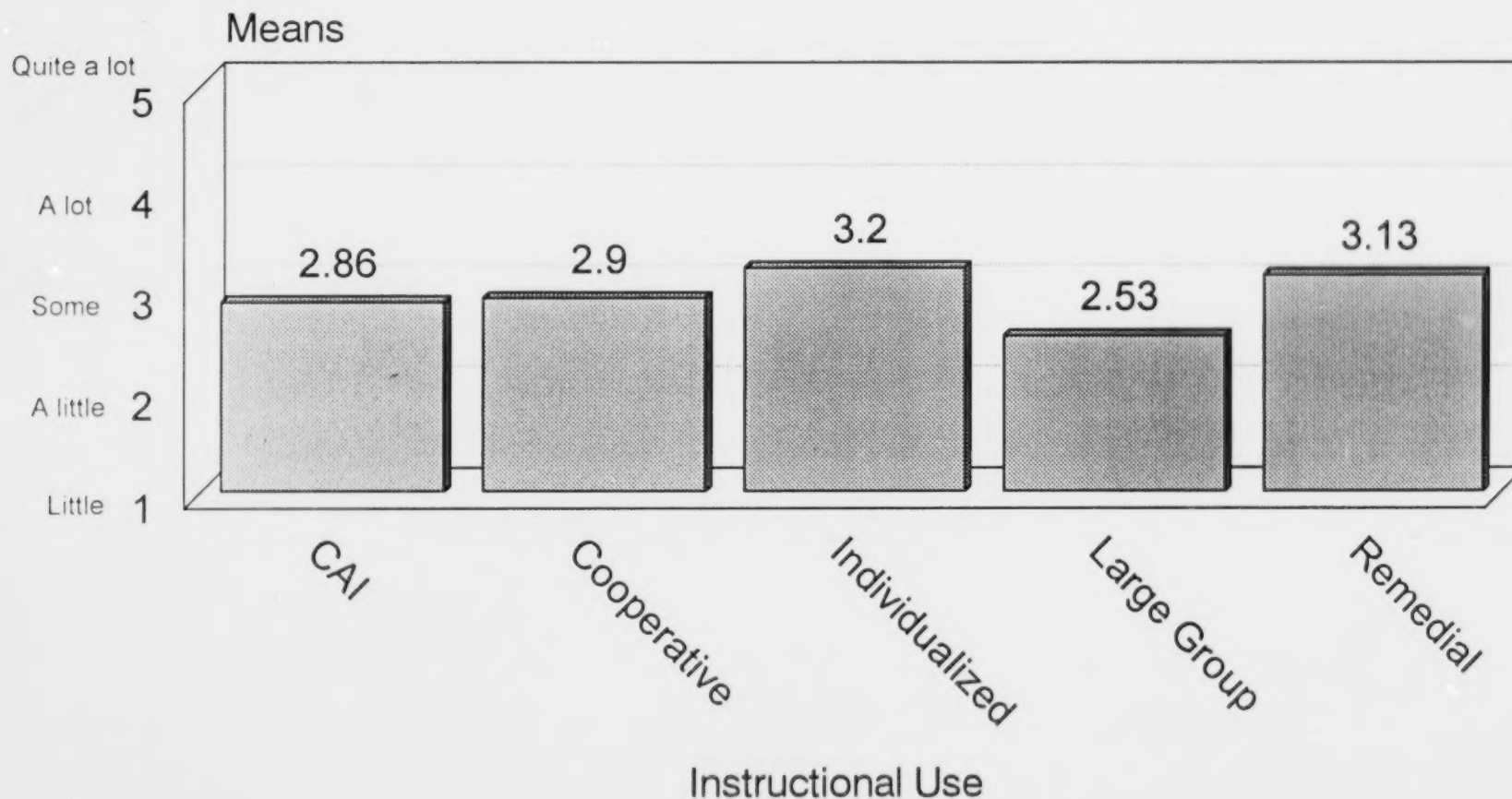


Figure 5

Confidence in Technology (Productivity Tool)

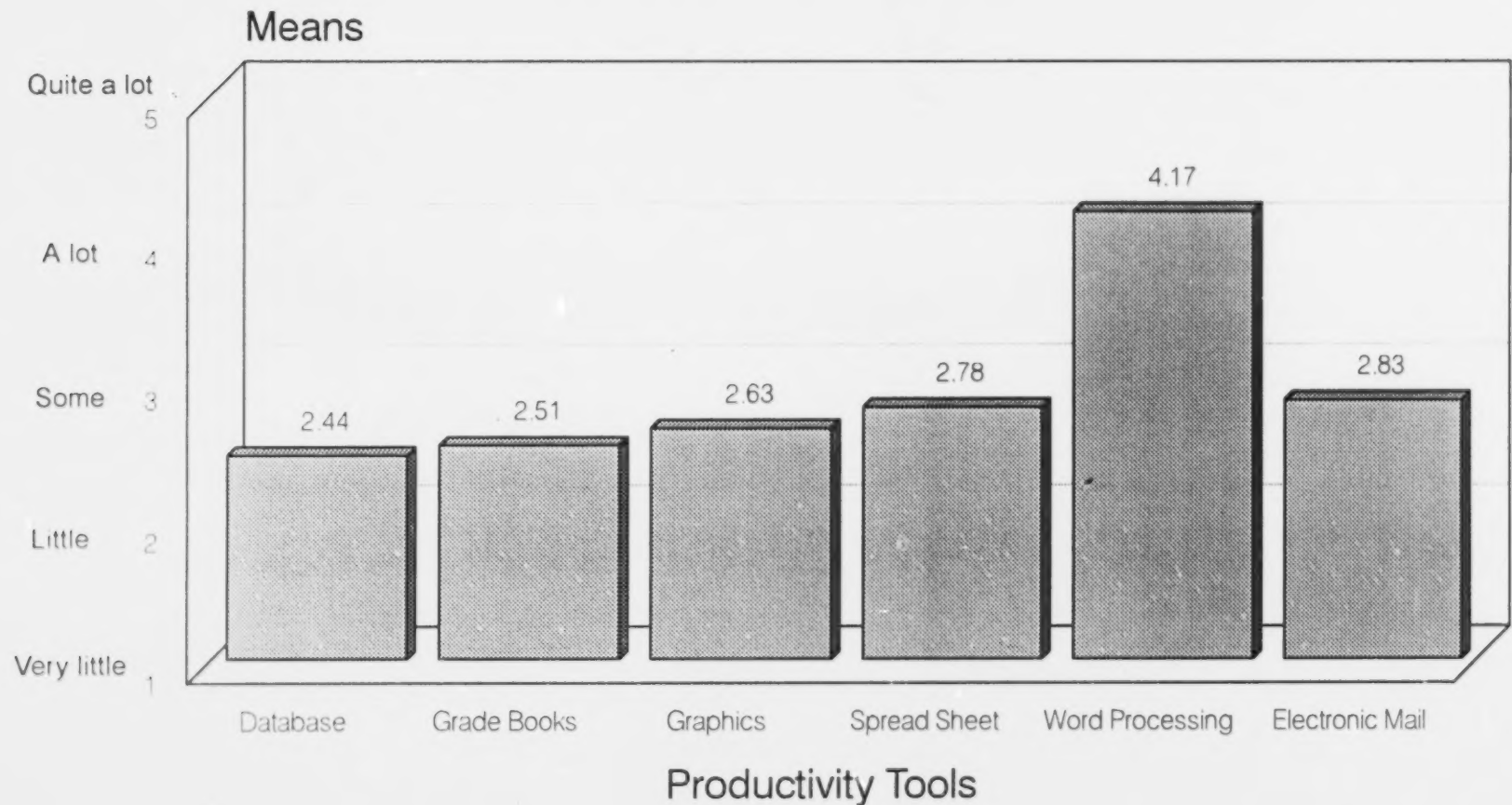


Figure 6
Confidence in Technology (Complete
Applications & Video)

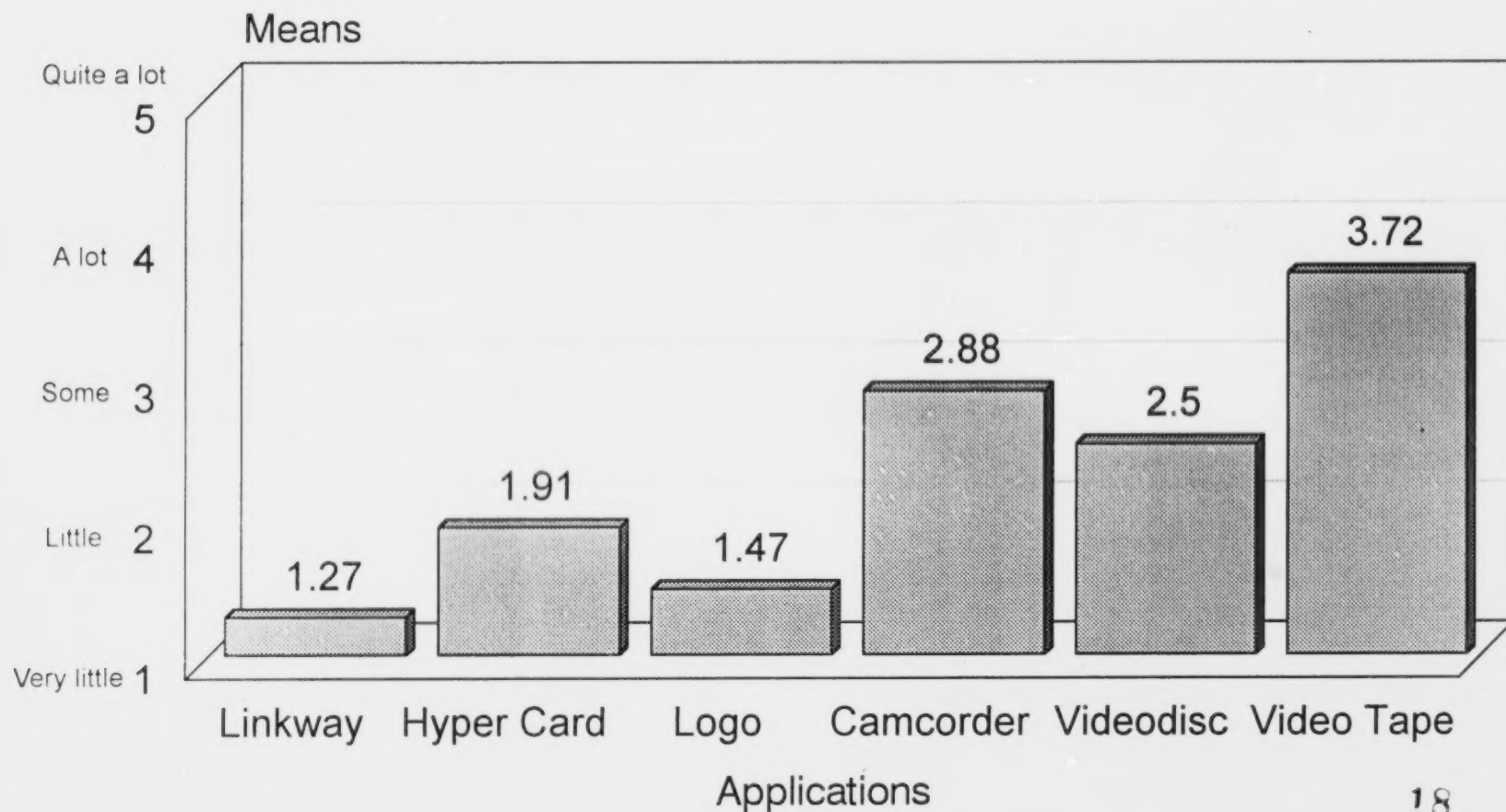


Figure 7

Confidence in Technology

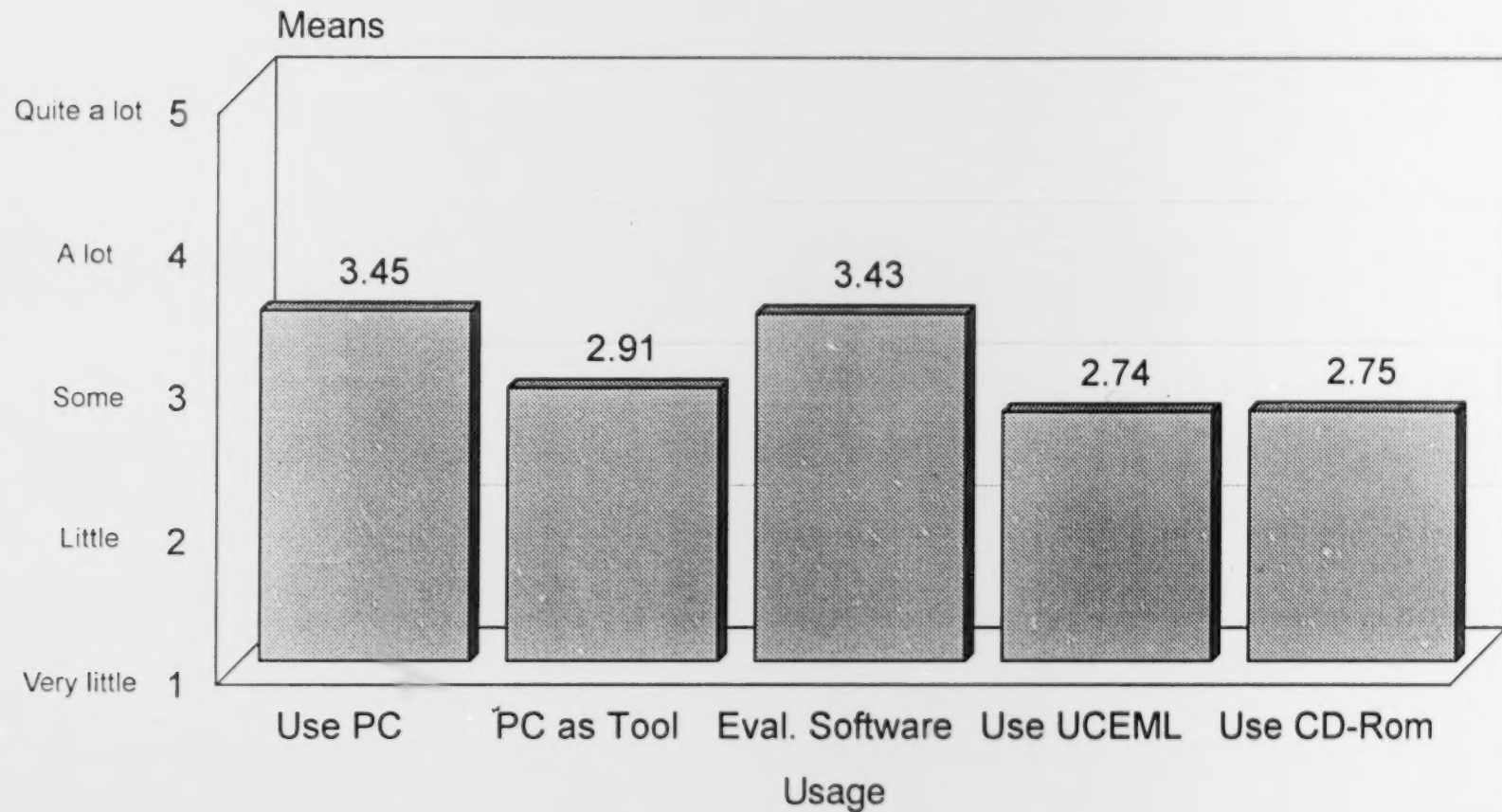


Figure 8

Future Needs

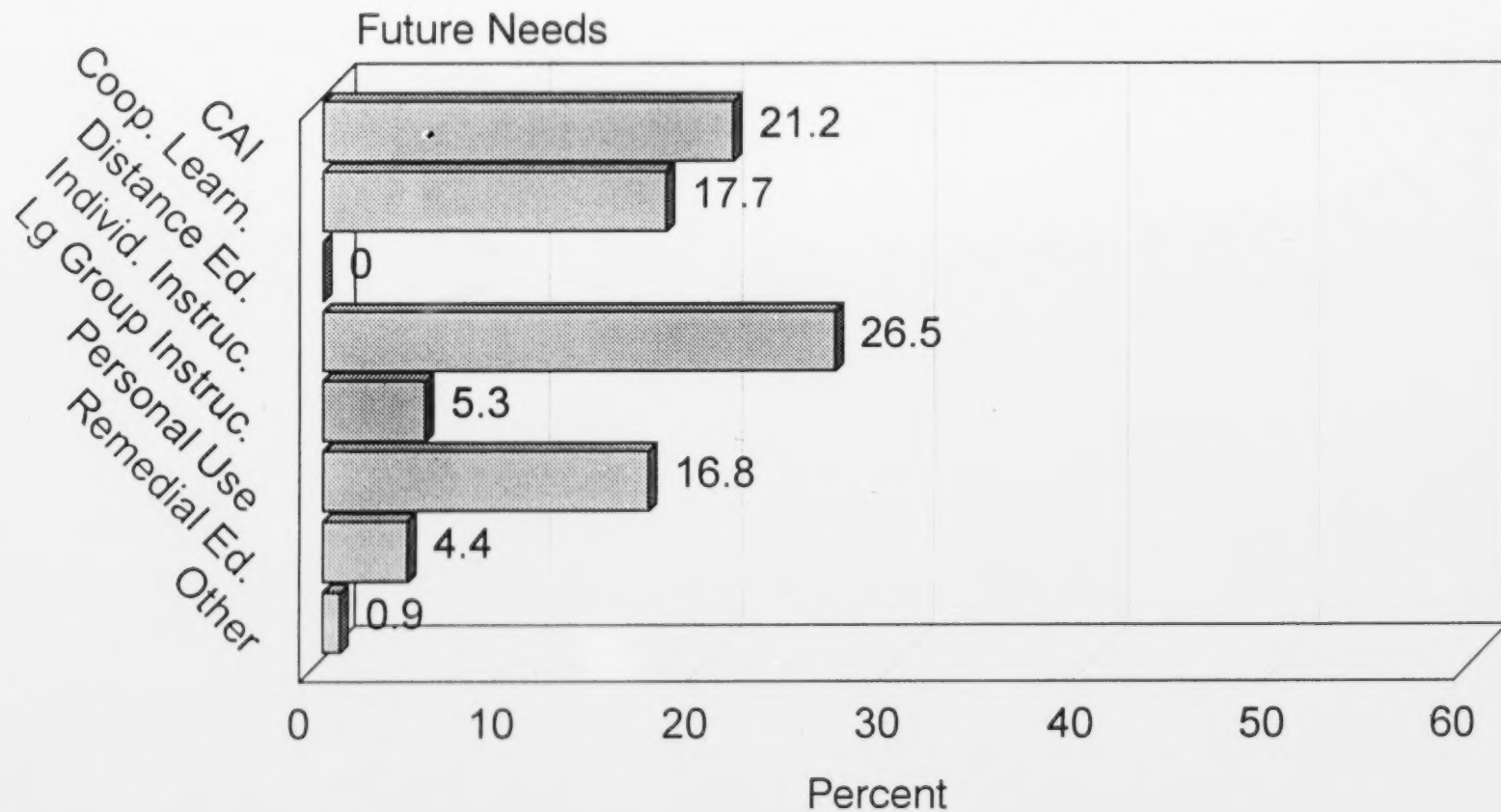
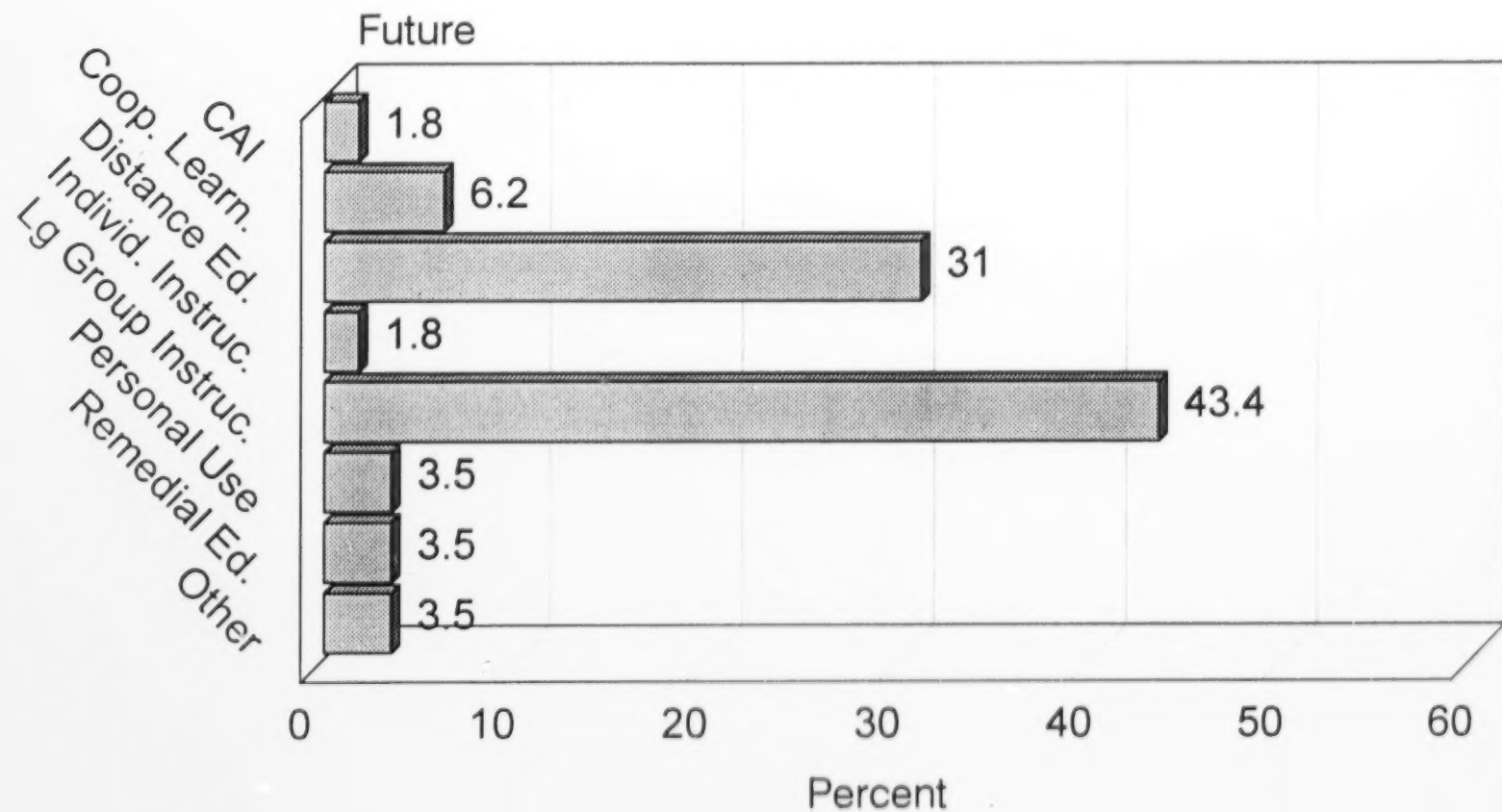


Figure 9
Future Needs (Used Least in the Future)



Appendix A

Survey of Computer Use in Teacher Preparation Programs

ID Number

Do not mark outside this line

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1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9

THE UNIVERSITY OF CONNECTICUT SURVEY OF COMPUTER USE IN TEACHER PREPARATION PROGRAMS

Directions: Mark answers on these sheets in the space provided. Use a #2 pencil only. Mark in the ovals completely and erase any stray marks.

DEMOGRAPHICS

GENDER: ☐ Male ☐ FemaleYEAR: ☐ Junior ☐ Senior ☐ 5th Year ☐ OtherEDUCATIONAL PROGRAM: ☐ Elementary
☐ Secondary
☐ Special Education
☐ Sports
☐ OtherDO YOU OWN A COMPUTER? ☐ Yes ☐ NoHAVE YOU EVER USED A MICROCOMPUTER BEFORE ENTERING THE TEACHER EDUCATION PROGRAM? ☐ Yes ☐ NoIN WHICH AREA DO YOU USE THE COMPUTER MOST? CHECK ONLY ONE: ☐ Instructional Tool
☐ Job-Related Productivity
☐ Leisure Activities
☐ Personal Productivity
☐ Not Applicable

STUDENT ROLE

1. Have you ever taken a course where you were taught to use computers? ☐ Yes ☐ No2. If you were taught to use a computer, which was the highest level at which instruction occurred?
☐ Elementary ☐ Junior High ☐ Senior High ☐ College3. As a student at UCONN, have you ever used a computer in any course other than the computer education course?
☐ Yes ☐ No4. If you have used a computer other than in the computer education course, was it a course in Education? ☐ Yes ☐ No5. Do you currently use a computer to complete your class work at UCONN? ☐ Yes ☐ No6. As a student, how often did you use a computer? ☐ Always ☐ Often ☐ Seldom ☐ Never7. How often do you use electronic mail? ☐ Always ☐ Often ☐ Seldom ☐ Never

Filename: COMPUTER.DAT

ID Number

Do not mark outside this line

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(0)	(0)	(0)
(1)	(1)	(1)
(2)	(2)	(2)
(3)	(3)	(3)
(4)	(4)	(4)
(5)	(5)	(5)
(6)	(6)	(6)
(7)	(7)	(7)
(8)	(8)	(8)
(9)	(9)	(9)

TEACHER ROLE SECTION A

8. As a teacher, how often do you currently use a computer? ☐ Always ☐ Often ☐ Seldom ☐ Never
9. As a teacher, how often do you use a computer as an instructional tool? ☐ Always ☐ Often ☐ Seldom ☐ Never
10. When using the computer as an instructional tool, in which one of the following situations do you use it most?
Check only one. ☐ Computer-Assisted Instruction
☐ Cooperative Learning
☐ Individualized Instruction
☐ Large Group Instruction
☐ Remedial Instruction
☐ Other
11. With respect to your personal productivity, in which area do you use the computer most?
☐ Data Base
☐ Grade Books
☐ Graphics
☐ Spreadsheets
☐ Word Processing
☐ Other
12. In developing instruction, which computer application do you use most? ☐ Linkway
☐ Hypercard
☐ Logo
☐ Other
☐ None of the above
13. As a teacher, how often do you use electronic mail? ☐ Always ☐ Often ☐ Seldom ☐ Never
14. When evaluating instructional software, which one of the following areas would you consider MOST important?
☐ Adaptability
☐ Appropriateness
☐ Cost
☐ Instructional Design
☐ Length of Program
☐ User-Friendliness
15. When evaluating instructional software, which one of the following areas would you consider LEAST important?
☐ Adaptability
☐ Appropriateness
☐ Cost
☐ Instructional Design
☐ Length of Program
☐ User-Friendliness
16. How often do you make use of the facilities available at UCCEL? ☐ Always ☐ Often ☐ Seldom ☐ Never
17. Do you know what facilities are available at UCCEL? ☐ Yes ☐ No
18. Have you ever used the CD-ROM for literature searches at the library? ☐ Yes ☐ No

Filename: COMP2.DAT

ID Number

Do not mark outside this line

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0	0	0
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9

Quite a Lot

A Lot

Some

Little

Very Little

TEACHER ROLE SECTION B

USING THE SCALE SHOWN, RATE HOW MUCH CONFIDENCE YOU HAVE IN DOING THE FOLLOWING

19. Using a computer.

20. Using a computer as an instructional tool.

21. Using a computer instructionally with respect to the following situations.
Computer-Assisted Instruction

Cooperative Learning

Individualized Instruction

Large Group Instruction

Remedial Instruction

22. Using a computer as a productivity tool in each of the following areas.
Data Base

Grade Books

Graphics

Spreadsheets

Word Processing

Electronic Mail

23. Using each of the following computer applications.
Linkway

Hypercard

Logo

24. Using the following video features.
Camcorder

Videodisc

Videotape

25. Evaluating instructional software.

26. Using the facilities available at UCCEL.

27. Using a CD-ROM for literature searches.

Filename: COMP3.DAT

ID Number

Do not mark outside this line

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0	0	0
1	1	1
2	2	2
3	3	3
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5	5	5
6	6	6
7	7	7
8	8	8
9	9	9

FUTURE NEEDS

28. As a teacher, in which situation do you think you will use the computer MOST in the future?

Check only one.

- ☐ Computer-Assisted Instruction
☐ Cooperative Learning
☐ Distance Learning/Teaching
☐ Individualized Instruction
☐ Large Group Instruction
☐ Personal Productivity
☐ Remedial Instruction
☐ Other

29. As a teacher, in which situation do you think you will use the computer LEAST in the future?

Check only one.

- ☐ Computer-Assisted Instruction
☐ Cooperative Learning
☐ Distance Learning/Teaching
☐ Individualized Instruction
☐ Large Group Instruction
☐ Personal Productivity
☐ Remedial Instruction
☐ Other

30. Would you like to have instruction designed to increase your ability to use computers more effectively? ☐ Yes ☐ No31. Do your college instructors (other than School of Education Professors) effectively use computers in their classes. ☐ Always ☐ Sometimes ☐ Seldom ☐ Never

32. Do your School of Education Professors effectively use computers in their classes.

☐ Always ☐ Sometimes ☐ Seldom ☐ Never